

GALLAI, Tibor

Critical graphs. Pt. 2. Mat kut kozl MTA 8 series A no. 3:
373-395 '63('64).

1. Editorial board member, "A Magyar Tudomanyos Akademia Matematikai
Kutato Intezetenek Kozlemenyei."

GALLAI, Tibor

Elementary correlations relating to the members and
dissociative points of graphs. Mat kut kozl MTs 9
Series A no.1/2:235-236 '64.

1. Editorial Board Member, "A Magyar Tudomanyos Akademia
Matematikai Kutato Intezetének Kozlomenysi."

GALLAI, Zoltan

HARASZTI, Istvan, dr.,; GALLAI, Zoltan, dr.

Role of penicillin in prevention of congenital syphilis. *Borgvagy.*
vener. szemle 8 no.4:127-129 July 54

(SYPHILIS, prevention and control)
prev. of congen. syphilis by penicillin)
(PENICILLIN, ther. use
syphilis, congen., prev.)

GALLAI, Zoltan

RACZ, Istvan, dr.; GALLAI, Zoltan, dr.; FOLDES, Miklos, dr.

Data on action mechanism of unsaturated fatty acids in the therapy of childhood eczemas. *Borgyogy. vener. szemle* 9 no. 6:225-228 Nov 55.

- (LINOLEIC ACID, therapeutic use
eczema with hypochromic anemia in child, with linolenic acid, eff. on hematopoiesis.)
- (FATTY ACIDS, therapeutic use
linolenic acid with linoleic acid, in eczema with hypochromic anemia in child, eff. on hematopoiesis)
- (ECZEMA, in infant and child
compl., hypochromic anemia, ther., linoleic & linolenic acid, eff. on hematopoiesis)
- (ANEMIA HYPOCHROMIC, in infant & child
compl., eczema, ther., linoleic & linolenic acid, eff. on hematopoiesis)

GALLAI, Zoltan

RACZ, Istvan, dr.; GALLAI, Zoltan, dr.

Chlorpromazine in the therapy of skin diseases. Orv. hetil.
97 no.15:398-399 8 Apr 56.

1. A Nephadsereg Egészségügyi Szolgálatnak közleménye.

(PSORIASIS, ther.

chlorpromazine, results. (Hun))

(ECZEMA, ther.

same)

(BLISTER

form., exper., induced by iodoacetic acid, eff. of
chlorpromazine. (Hun))

(CHLORPROMAZINE, ther. use

eczema, psoriasis & exper. blister form., results.
(Hun))

EXCERPTA MEDICA Sec. 13 Vol. 11/7 Dermatology Jul 57

1815. RÁCZ St. and GALLAI Z. Budapest. *Angaben zur Rolle des Largactils bei der Behandlung einiger Hautkrankheiten. The role played by largactil in the treatment of some skin diseases DERM. WSEHR. 1956, 134/28 (770-773) Tables 3

Largactil, 3-chloro-10-(3-dimethylaminopropyl)phenothiazine hydrochloride, inhibits the function of the parasympathetic, lowers the blood pressure, is antispasmodic, sedative, antipyretic and antihistaminic. Six patients with psoriasis vulgaris, and 16 with various types of eczemas were treated with largactil, 3 doses of 25 mg. There was no visible effect upon the cases of psoriasis but in the eczematous patients, a marked reduction or complete disappearance of itching and thus improvement of the pathological picture, was observed. Rust - Berlin

GALLAK, V. M.

USSR/Chemistry - Oxygen, Chlorine Production Aug 51
 "Method for Separate Catalytic Production of Oxygen
 and Chlorine from $\text{Ca}(\text{ClO})_2$ ", V. M. Gallak
 "Zhur Prikl Khim" Vol XXIV, No 8, pp 798-806
 $\text{Ca}(\text{ClO})_2$ with small amts of catalysts at low temps
 can activate oxidation processes, while O_2 may be
 prepd with larger amts of catalysts at higher temps.
 Catalysts are oxides of Ni, Co, Fe, Cu, Mn; most
 satisfactory for development of O_2 being Co-Fe in
 3:2 ratio. Catalysts and $\text{Ca}(\text{ClO})_2$ will not interact
 in absence of H_2O . Inexpensive, available $\text{Ca}(\text{ClO})_2$
 190126
 USSR/Chemistry - Oxygen, Chlorine Production Aug 51
 (Contd)
 can be used to replace very scarce KClO_3 (for produc-
 tion of O_2) and compds of Mn and HCl (for production
 of Cl_2).
 190126

GALLAK, V.M.; BELINSKAYA, N.I.; PAVLOVA, T.A.

Chlorination of methane by chlorine oxide. Zhur.prikl.khim. 38
no.11:2599-2602 N '65.

(MIRA 18:12)

1. Submitted October 14, 1963.

GALLAK Y.M.

The chemical dyeing of wood with nitrogen oxides. V. M. Gallak. *Doklady Akad. Nauk SSSR*, 1954, No. 4, 10-11 (1954).--Wood from aspen, pine, birch, beech, and oak was dyed with N oxides; the insect and bacterial resistance of the wood was increased, and the surface given an orange to brown color. The wood may be dyed by subjecting it for 5 min. to an atm. of NO_2 (prepd. from NO and O_2), or by immersion of the wood for 10-15 min. in a 5% aq. soln. of $\text{FeSO}_4 \cdot 7\text{H}_2\text{O}$ followed by treatment for 10 min. with NO . In the prepn. of NO , 6.8 g. $\text{FeSO}_4 \cdot 7\text{H}_2\text{O}$ and 0.20 g. NaNO_2 are mixed and 1.3-1.4 cc. H_2O is added. The gases are highly toxic. John Lake Kenyon

GALLAK, V.M.; BELINSKAYA, N.I.; PAVLOV, T.A.

Method of preparing chlorine oxide. Zhur.prikl.khim, 38 no.6:1225-
1229 Je '65. (MIRA 18:10)

GALLAN, A., inz.

Final reports on scientific research tasks assigned by the
Czechoslovak Academy of Sciences, Building and Architecture
Institute of the Slovak Academy of Sciences, Bratislava.
Stav cas 11 no.8:532 '63.

MEGHEA, C.; DACU, Gh.; CONSTANTINESCU, M.; GALLANI, S.; IVANESCU, V.; NEGOCESCU, M.

Our experience with the one-stage complex surgical cure of
complicated thoracic tuberculous spndylitis. Rumanian med.
rev. 7 no.3: 70-73 Ja-Mr'64.

x

CALUSINSKI, Bogdan, mgr.; GALLAR, Jan, mgr. inz.; SKORUPA, Andrzej,
mgr. inz.

Testing pressure welds in steel constructions with the ZSK-2
magnetic flaw detector. Przegl. spaw 15 no.10:228-229 0'63

1. Akademia Gorniczo-Hutnicza, Krakow.

GOLECKI, Jozef; GALLAR, Jan

Design solutions and computing methods of blast furnace skip
hoists. Problemy proj hut maszyn 12 no.8:229-236 Ag '64.

1. School of Mining and Metallurgy, Krakow.

CALUSINSKI, Bogdan, mgr.; GALLAR, Jan, mgr. inz.; SKORUPA, Andrzej, mgr inz.

Magnetic method of testing butt welds. Przegl spaw 16 no.7/8:
189-190 J1-Ag'64

1. Technical University, Czestochowa (for Calusinski). 2. School
of Mining and Metallurgy, Krakow (for Gallar and Skorupa).

L 61967-65 EWP(c)/EWP(v)/T/EWP(k)/EWP(1)/EWP(m)
ACCESSION NR: AT5015383

Pf-4 WW
PO/2531/64/000/005/0145/0150

AUTHOR: Calusinski, Bogdan; Gallar, Jan

TITLE: Investigations on a prototype of the ZSK-1 transistorized magnetic flaw detector

SOURCE: Czestochowa, Politechnika. Zeszyty naukowe, no. 24, 1964. Nauki podstawowe, no. 5, 145-150

TOPIC TAGS: magnetic defectoscope, flaw detection, transistorized flaw detector

ABSTRACT: In the introductory section, the paper briefly discusses the present-day achievements in the testing of magnetic materials using magnetic flaw detectors. The difference method and the bridge method of magnetic flaw detection are discussed. A new design for a magnetic flaw detector using the bridge method is proposed. Its schematic is shown in Fig. 1 of the Enclosure. A one-stage amplifier was found to provide sufficient gain on account of the high sensitivity of the detector (an earphone from a hearing-aid apparatus). The complete instrument was mounted on a 20x9 cm celluloid plate. A 3-point measurement procedure is given. Appearance of an acoustic signal in the earphone indicates the presence of a flaw, and the signal intensity provides some measure of the flaw extent. The method of measuring the instrument sensitivity is also given. The instrument can detect, with sufficient certainty, flaws 1 mm in diameter at a depth of 18 mm under the

Card 1/3

L 61267-66

ACCESSION NR: AT5015383

surface. Various possible applications of this instrument are given. Orig. art. has 3 figures.

ASSOCIATION: Katedra Fizyki, Katedra Mechaniki i Wytrzymałości Materialow, Politechnika Czestochowska (Departments of Physics and of Mechanics and Strength of Materials, Czestochowa Polytechnic Institute)

SUBMITTED: 00

ENCL: 01

SUB CODE: EC, IE

NO REF SOV: 001

OTHER: 003

Card

2/3

L 61967-65

ACCESSION NR: AT5015383

ENCL: 01

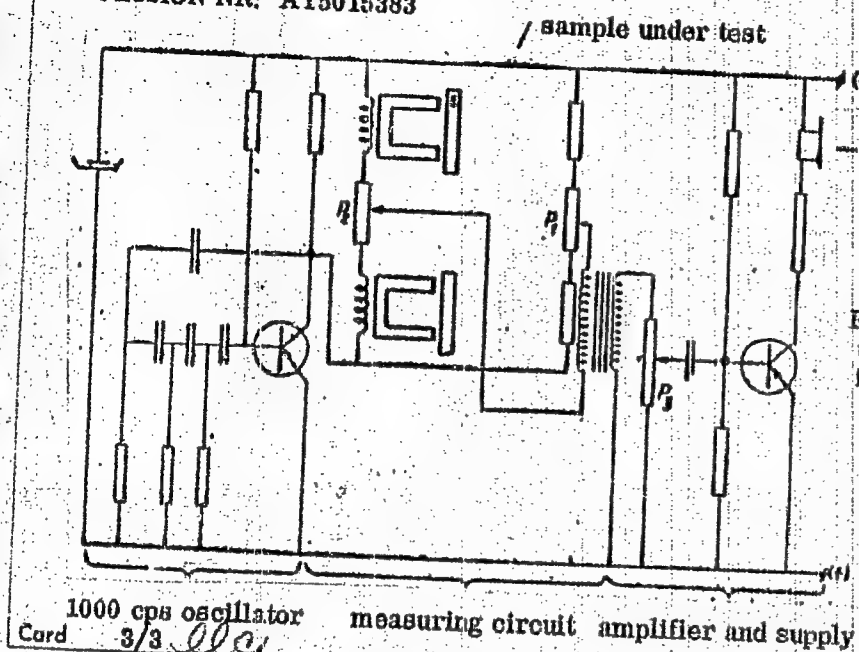


Fig. 1. Schematic of the transistorized magnetic flaw detector

L 38141-65 EWT(d)/EWP(c)/T/EWP(r)/EWP(x)/EWP(l) P/0034/65/000/002/0082/0083

ACCESSION NR: AP5006980

AUTHOR: Calusinaki, B. (Master); Golecki, J. (Docent, Doctor, Engineer);
Callar, J. (Master engineer)

TITLE: The transistorized magnetic flaw detector ZSK-2

SOURCE: Pomiary, automatyka, kontrola, no. 2, 1965, 82-83

TOPIC TAGS: Flaw detector, magnetic flaw detector, transistorized flaw detector,
internal flaw / ZSK-2 flaw detector

ABSTRACT: The paper discusses the methods of magnetic flaw detection used so far from the standpoint of detecting flaws located far below the surface (internal flaws). It notes that there are no methods at present which can detect flaws lying deeper than 20 mm with the exception of the expensive x-ray methods. The paper describes in detail and discusses the principle of operation and the construction of an instrument for detecting deep lying flaws (Polish Patent No. 100609). Fig. 1 of the Enclosure shows the schematic of the measuring system of the instrument and Fig. 2 shows the block diagram of the flaw detector. The frequency of the generator of sinusoidal oscillations is 4 kcps and the oscillation amplitude is about 3 volts. The voltage amplification factor of the selective amplifier is 1500. A procedure for using this instrument is given.

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7 38141-65
ACCESSION NR: AP5006980

Orig. art. has: 3 figures.

ASSOCIATION: Politechnika Czestochowska (Czestochowa Polytechnic Institute);
(Golecki, Gallar) Akademia Gorniczo-Hutnicza, Krakow (Mining and Metallurgical
Academy)

SUBMITTED: 00

ENCL: 02

SUB CODE: EC, IE

NO REF SOV: 003

OTHER: 005

Card 2/4

TOMANEK, A.; PULPYTEL, J.; GALLAS, J.

A new method of measurement of respiratory movements of the bronchi.
Cesk.otolar.9 no.5:271-273 0'60.

1. Vyzkumny ustav tuberkulozy v Praze 8, reditel doc.dr. R.Krivinka.
(BRONCHI physiol)
(RESPIRATION)

ACCESSION NR: AP4033066

P/0034/64/000/004/0168/0169

AUTHOR: Calusinski, Bogdan(Tsalusin'ski, B.)(Master in arts); Gallar, Jan
(Master engineer)

TITLE: The transistor magnetic ZSK-1 flaw detector

SOURCE: Pomiary, automatyka, kontrola, no. 4, 1964, 168-169

TOPIC TAGS: flaw detector, bridge detector, magnetic flaw detector, ZSK-1
flaw detector

ABSTRACT: The authors designed the ZSK-1 because of a lack of this type of flaw detector in Poland. The design is based on detection by the bridge method. The instrument (Fig. 1) consists of an RC transistor generator with acoustic frequency, a bridge measuring system, a transistor amplifier, and receivers. It has a frequency $f = 1000$ Hz, an amplitude of electric motor power output $E_0 = 2$ V, and an output impedance $R_{\text{output}} = 1$ k Ω . It detects flaws that are 1 mm in diameter, located at depths of 10 mm. A slight change in the shape or dimensions of the core in the measuring system makes the instrument suitable for detecting flaws due to diminution, inclusion, and concentration of strain in ferromagnetic materials, for studying the thickness of ferromagnetic plates, and for studying

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ACCESSION NR: AP4033066

the thickness of foil or coatings made of nonmetallic materials. Work to improve the ZSK-1 flaw detector continues. Orig. art. has: 3 figures.

ASSOCIATION: Politechnika Czestochowska (Czestochowa Polytechnic); Akademia Gorniczo-Hutnicza, Krakow (Mining Academy)

SUBMITTED: 00

DATE ACQ: 15May64

ENCL: 01

SUB CODE: EC

NO REF SOV: 002

OTHER: 000

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ACCESSION NR: AP4033066

ENCLOSURE: 01

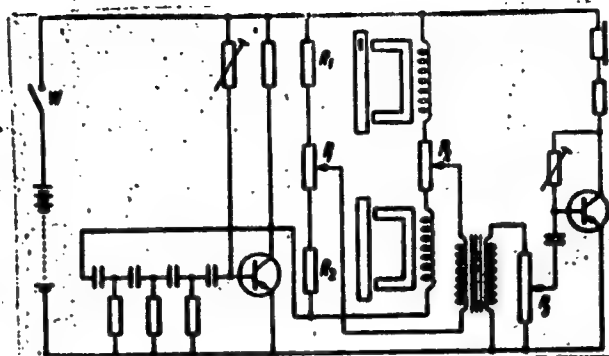


Fig. 1. Schematic diagram of the ZSK-1 flow detector

1 - R_1 and R_2 - Rheostats; 2 - P_1 , P_2 , and P_3 - Potentiometers; 3 - W - Switch

Card 3/3

SABACKY, Vladimir, inz.; HOMOLA, Bedrich, inz.; VAVRA, Miroslav, inz.;
GALLAS, Jan

Effectiveness of the construction of main lumberyards depends
on the use of heavy duty machines. Les cas 11 no.3:249-272
Mr '65.

1. Enterprise Management of State Forests, Brno (for Sabacky
and Homola). 2. Forest Enterprise Telc (for Vavra). 3. Forest
Enterprise Rajnochovice (for Gallas). Submitted November 3,
1964.

CA

25

Flotation methods for purification of waste waters. W. Knech, *Colloids*, Travelled, Paper 6, 17-202 (1953).—The problem of reuse of white water in paper mills is discussed from the view of industrial economy, stream pollution, and recovery of sludge and other raw materials. Various methods of white-water treatment prior to its release into streams, with particular emphasis on flotation-type save-alls, are described. T. R. Ziegler.

GALLAS, W.

"The Massey Coating Equipment" p. 26. (Przegląd Papierniczy, Vol. 9, no. 1, Jan. 1953, Lodz)

SO: Monthly List of East European Accessions, Vol.3, No.2, Library of Congress, Feb. 1954

GALLAS W.

GALLAS, W.; RZYSKI, J.

How operational difficulties of papermaking machine No. 5 were overcome in the Paper Factory of Myszkow. p. 237. (PRZEGLAD PAPIERNICZY, Vol. 10, No. 8, Aug. 1954, Lodz, Poland)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 3, No. 12, Dec. 1954, Uncl.

GALLAS, W.

GALLAS, W. Modernization of the paper machine to improve production. p. 270

Vol. 12, no. 9, Sept 1956

PRZEGŁAD PAPIERNICZY

TECHNOLOGY

Lodz, Poland

So: East European Accession Vol. 6, no. 2, 1957

GAILAS, W.

Modernization of the cigarette-paper machine

P. 45 (PRZELGAD PAPIERNICZY) (Lodz, Poland) Vol. 13, no. 2,
Feb. 1957

SO: Monthly Index of East European Accession (EEAE) IC Vol. 7, No. 5, 1958

GALLAS, Wojciech, inż.

Automatic paper sorting. Przegl papier 19 no.12: 383-386 D'63.

1. Biuro Projektow Przemyslu Papierniczego, Lodz.

GALLAS, Wojciech, inż.

Radiclon type hydrocyclone cleaner. Przegl papier 20
no. 1: 18-20 Ja '64.

Gellat, Wojciech, inx.

Application of pneumatic transportation in the pulp and paper industry. Pt. 1. Przegl papier 20 no.6:183-186 Je. '64.

1. Design Office of the Paper Industry, Lodz.

GALLAS, Wojciech, inz.

Use of pneumatic transportation in the pulp and paper industry.
Pt. 2. Przegl papier 20 no.7:218-222 J1 '64

1. Design Office of Paper Industry, Lodz.

STASINSKI, Witold, mgr inz.; GALLAS, Wojciech, inz.

Paper machine No.4 in the Szczecin Pulp and Paper Mill in Skolwin. Przegl papier 20 no.10:323-329 0 '64.

1. Szczecin Pulp and Paper Mill, Skolwin (for Stasinski).
2. Design Office of Paper Industry, Lodz (for Gallas).

GALLER, I.; GUY, Z.; KAPAS, H.

Civil engineering experiences in the Soviet Union. p. 112.

ARMAN SPINTEA. (Epitol, ori Tudoravros Sinesuleet) Ind. int. Hung. ry.
vol. 8, no. 10, Oct, 1952.

In the List of East European Accessions (Soviet) II, vol. 3, no. 1, Jan. 1950

U.c1.

3(2) PLANS I BOOK EXPIRATION 809/2252

Shkolenko sent 8028. Institut khimicheskoy i biokhimiyezhskoy khimii
Raznyye redokhniye elementy, Vys. 3 (Chemistry of Rare Elements, Pt 3) Moscow,
Izd-vo AN SSSR, 1977. 135 p. 4,500 copies printed. Price 41 kopecks.

the following information for identification of rare elements.

NOTES: The book is a collection of papers on investigations in the chemistry of rare elements conducted at the Institut chimique i géochimie minérale (Institut E. S. Karakova) (Institute of General and Inorganic Chemistry named E. S. Karakova). No personalities are mentioned. There are 165 references: 99 Soviet, 20 English, 41 German, 15 French, 1 Italian, and 1 Japanese.

Al'yashchev, V. Ye., and V. B. Salimova. Investigation of Solubility in the System Lithium Carbonate-Lithium Sulfate-Water at 50°C

Smolensk, A. V., and L. P. Rebernikova, Vapor Pressure of Saturated Solutions in the System $(\text{H}_2\text{O})_2\text{SO}_4 - \text{BaSO}_4 - \text{BaCO}_3 - \text{H}_2\text{O}$

BRAND, G. G., V. B. FELLERS, V. J. PLYUSHEV, and E. J. GUYTON.
Investigation of solubility in the System Lanthanum Sulfate-Azodic
Sulfate-Water at 50°C

Kneuper, Y. V., and M. I. Levina, *Neodymium Ferrocenylates* 23

Maneyev, I. V., and N. V. Maneyeva.
Gallium Ferrocyanides and Their
Analytical Significance

Sebenius, A.-J. Investigation of the Interaction of Ions of Calcium and Oxalate in Aqueous Solution

ayshina, B. M., and I. V. Papanov. Formation of Iodine Hydroxide. Investigation of the Reaction of

BRUNY, V. O., and A. P. KOBERTSKAYA, **Synthesis and Thermographic Investigation of Some Complexes of Iodine** 57

Verwey, A. J. A., and F. H. Verwey. Isothermal Solubilities at 25°C in the Systems BaCO_3 - NaCl - H_2O and BaCO_3 - MgCO_3 - H_2O

Schiller, H. J. The Chromate Method of Determination of Tannin

Williams, J. P., and L. S. Lloyd. Quantitative Interrelation of
Dirosoma with Phylla

Sebkova, Ye. M., A. A. Galley, and S. E. Alekseyeva. Determination of Molybdenum Isoparametris. 119

Reviews, P. M. A Project of Compiling a Reference Guide on Rare Books in Latin America 191

CITATION: LIBRARY OF CONGRESS

10/1/2000

TRET'YAKOV, Andrey Vladimirovich; GALLAY, B.M., redaktor; VALOV, N.A.,
redaktor izdatel'stva; KARASNY, A.I., tekhnicheskii redaktor

[Rolling thin strips] Prokatka tonchaishei lenty. Moskva, Gos.
nauchno-tekhn.izd-vo lit-ry po chernoi i tsvetnoi metallurgii,
1957. 96 p. (MIRA 10:7)
(Rolling (Metalwork))

GALLAY, Michal, inz.

Waterwork of Velka Domasa. Vodni hosp 13 no.1:37-38 '63.

34289

S/004/62/000/003/001/001

D238/D301

17.4100

AUTHORS: Kibardin, Yu., Candidate of Technical Sciences, and
Gallay, M., Honored Test-Pilot of the USSR, Hero of
the Soviet Union

TITLE: Barrier of the unknown. Engineers look forward

PERIODICAL: Znaniye - sila, no. 3, 1962, 17 - 19

TEXT: The article is based on an incident in a Soviet feature film "Barrier of the Unknown", which is shortly to be released. A super-fast test plane (no undercarriage) is cruising at 5,200 km/hr at a height of 92,000 meters waiting to be picked up by the carrier plane. A blue glow suddenly develops outside the plane and envelops the whole fuselage. However, it is not sensed by the pilot and is not recorded on any of the instruments. This phenomenon is then left to the two authors mentioned above to explain. Kibardin gives two possible explanations of the phenomenon. 1) The temperature of the boundary layer rises sufficiently to cause molecular dissociation of the air and the formation of atomic oxygen and nitrogen.

Card (1/2)

Barrier of the unknown. Engineers ...

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D298/D301

These then enter into chemical reaction to form nitrous oxide, a gas that can glow at high temperatures. Although the glow is of no danger, the active atomic oxygen may enter into reactions with the superheated metal fuselage of the plane, weaken its strength and lead to an explosion. 2) Through friction with the air the plane may become charged to a very high potential and become a source of electrical discharge in the form of a cold glow. Gallay gives no explanation of the glow phenomenon but describes the development up to the end of World War II of the launching and recovery of planes from a carrier plane in the Soviet Union. Persons mentioned as connected with this development are: Aviation Engineer V.S. Vakhmistrov, Test-Pilots Anisimov and V.P. Chkalov, Pilot A.I. Zalevskiy, Test-Pilot V.A. Stepachenok, Captain Arseniy Shubikov. The authors point out that nobody has yet seen such a glow as is described. There are 6 photos.

Card 2/2

L 10409-63 FA/EPA(b)/EWT(d)/EWT(1)/EWA(g)/EWT(m)/BDS/ES(v)--ARDC/AFPTC/
ASD/AFMDC/APGC/SSD--Pd-4/Py-4/Pe-4

PHASE I BOOK EXPLOITATION

SOV/6364

Gallay, M. L.

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Osobennosti pilotirovaniya reaktivnykh samoletov (Special Features
in Piloting Jet Aircraft) Moscow, Izd-vo DOSAAF, 1962. 195 p.
Errata slip inserted. 7600 copies printed.

Ed.: A. A. Vasil'yev; Tech. Ed.: L. T. Mikhlin.

PURPOSE: This manual is intended to familiarize pilots, instructors,
and engineering personnel in the handling of jet aircraft. It can
be used also by DOSAAF schools and the Civil Air Fleet.

COVERAGE: The book discusses the theory of high-speed aerodynamics,
and the piloting of jet aircraft under various conditions.

TABLE OF CONTENTS [Abridged]:

Introduction

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Mention is made of an experimental aircraft
which has attained speeds exceeding Mach 5,

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Special Features in Piloting Jet Aircraft

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and of the development and introduction of special equipment for rapid pressurized fuel-
ing of aircraft.

Ch. I. Takeoff Procedures For Jet Aircraft

14

A number of designs for the control of a wing's boundary layer have been drawn up, and the first wind-tunnel and flight tests have given positive results.

Ch. II. Ascent and Ceiling

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Ch. III. Flight at High Speeds and Altitudes

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The spontaneous oscillation of an aircraft at high altitudes is eliminated by an oscillation damper, which is part of the control system. The damper automatically compensates for aircraft oscillation, and pilot control is achieved with one motion of the controls.

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L 10109-63

Special Features in Piloting Jet Aircraft

80V/6364

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Ch. V. Piloting Spin and Recovery

113

Ch. VI. Landing Approach and Touchdown

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Ch. VII. Special Features on the Control of the Rudder, Aileron, and Propulsion Systems of Jet Aircraft

179

Automatic electronic devices for simplifying controls, already in use, will be applied on a large scale, as will cybernetic piloting units. The automatic fuel devices used on all modern jet engines independently regulate the engine to the flight program designated by the pilot with a "single jerk" of the control levers.

AVAILABLE: Library of Congress

SUBJECT: Aerospace

bm/ch
Card 3/3

AD/dk/jw
7/30/63

GALIA^Y, M. I.

Opredelenie profil'nogo soprotivleniia kryla samoleta v polete metodom impul'sov. Moskva, 1938. 36 p., illus., tables, diagrs. (TSAGI. Tekhnicheskie zametki, no. 161)

Bibliography: p. 36.

Title tr.: Determination of profile drag in flight by momentum measurements.

TL570.M6 no. 161

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of Congress, 1955.

GALLAY, M.L.

Vliianie skorostnogo polia vkrug samoleta na pokazania al'timetrov i barografov. (TSAGI, Trudy, 1939, p. 3-9, illus., diags.)

Title tr.: Effect of velocity distribution of air around the aircraft upon indicators of altimeters and barometers.

QA911.M65 no. 427

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of Congress, 1955

GALLAY, M.L.,

~~GALLAY~~, M.L., and B.N. EGOROV.

Izmerenie temperatury naruzhnogo vozdukha v polete. (TSAGI. Trudy, 1939, no. 427 p. 6-8, diags.)

Title tr.: Measurements of outside air temperature in flight.

QA911.M65 no. 427

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of Congress, 1955

GALLAI, M.L.

Ob uluchshenii prodol'noi ustoinivosti seriinykh samoletov. (Tekhnika
vozdušnogo flota, 1945, no. 4, p. 1-7, 17, diagrs., bibliography)

Title tr.: Improvement of longitudinal stability of airplanes produced
in series.

TI50h.T4 1945

SO. Aeronautical Science and Aviation in the Soviet Union. Library of
Congress, 1955.

GALLAY, M. L.

86-5-5/24

AUTHOR: Gallay, M. L., Col, Test Pilot, First Class, Hero of the Soviet Union, Candidate of Technical Sciences

TITLE: Takeoff and Landing of an Aircraft with a Bicycle Landing Gear (Vzlet i posadka samoleta s velosipednym shassi)

PERIODICAL: Vestnik Vozdushnogo Flota, 1957, Nr 5, pp. 27-34 (USSR)

ABSTRACT: A bicycle landing gear (Figure 1) consists of the two main struts, which are located under the fuselage, in the plane of the aircraft symmetry, and of two wing struts. The weight of the aircraft is usually distributed almost equally between the main struts. The wing struts are used to prevent the aircraft from banking when it moves on the ground. They carry only a very small part of the aircraft's weight. A bicycle landing gear has no tendency toward directional instability and spontaneous turns while moving on the ground. It has perfect visibility while taxiing. Its piloting is somewhat different. The control and the braking actions in an aircraft equipped with a bicycle landing gear are independent of one another. It follows that the braking may be of any strength, that a nonsynchronous adjustment of brakes or getting a wheel onto a slippery or wet section of the landing strip affect the direction of motion or the braking regime of the aircraft. In addition, a rotating front strut permits

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86-5-5/24

Takeoff and Landing of an Aircraft with a Bicycle Landing Gear (Cont.)

settling and maintaining the required radius of turn more precisely and makes easy the directional control of the aircraft at a side wind during takeoff on a landing run. An automatic increase of the attack angle during the takeoff run by means of the "squat" of the rear strut or the straightening of the front strut shortens the takeoff run distance and makes the takeoff independent of the action of the pilot. There is a diagram (Figure 2) showing the variation of the attack angle during the takeoff run of aircraft with a bicycle landing gear and an automatic increase for the takeoff. Attention should be directed to the fact that the attack angle of an aircraft with a bicycle landing gear cannot be controlled during the takeoff run up to the moment of takeoff and depends only on the design parameters of the aircraft. Aircraft of small and medium tonnage are sometimes equipped with a semi-bicycle landing gear. It is like a three-wheel landing gear whose nose wheel is left unchanged,

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86-5-5/24

Takeoff and Landing of an Aircraft with a Bicycle Landing Gear (Cont.)

while the main wheels are squeezed together and can be withdrawn into the fuselage as one carriage. The main wheels of these aircraft are displaced to the rear from the center-of-gravity farther than in the classic three-wheel landing system. The takeoff of an aircraft with a semi-bicycle landing gear differs from that of an aircraft with a bicycle landing gear. The former takes off in an ordinary way by lifting the nose wheel and creating a fore-and-aft angle during the takeoff run. There is a schematic drawing (Figure 3) showing the basic moments acting upon the aircraft in a longitudinal plane when the aircraft is moving on the ground with a lifted nose wheel. It is evident that the moments are created by a weight force, G , a lift force, Y , an aerodynamical resistance force, X , a lift force of the horizontal empennage, $Y_{p.o}$, and a thrust force of the power plant, P . When the aircraft moves on the ground in a side wind, there always appears the lateral aerodynamical force $Z = \frac{b}{h} (N_1 - N_2)$ (Figure 4) striving to overturn the

Card 3/4 aircraft to ~~overturn the aircraft~~

Takeoff and Landing of an Aircraft with a Bicycle Landing Gear (Cont.) 86-5-5/24

an-uneven distribution of the load on the left and right wheels of the landing gear (h is the distance between the point of application of the force and the ground, b is half of the track gauge of the landing gear, and N_1 and N_2 are the forces of the earth's reaction applied to the wheels). The reaction force of the earth appearing when the front landing strut touches the ground creates a moment about the center-of-gravity of the aircraft which favors the increase of the angle of attack. As a result, the lift force increases and the aircraft repeatedly leaves the ground. Such bouncing may become progressive. The pilot of an aircraft with a bicycle landing gear must pay special attention to make the landing on the rear strut or on both struts simultaneously. There is a schematic drawing (Figure 5) showing the position of the bicycle landing gear with respect to the earth's surface during the takeoff and landing. There are 5 figures.

AVAILABLE: Library of Congress

Card 4/4

SOV/86-58-10-23/40

AUTHOR: Gallay, M.L., Col, Test Pilot First Class, Candidate
of Technical Sciences, Hero of the Soviet Union

TITLE: Lateral and Directional Stability of Aircraft (Pope-
rechnaya i putevaya ustoychivost' samoleta)

PERIODICAL: Vestnik vozdushnogo flota, 1958, Nr 10, pp 49-53
(USSR)

ABSTRACT: A discussion and explanation of some stability phenom-
ena, especially of those which, the author states, are
often misunderstood. As soon as the aircraft changes
its direction of flight by the action of turbulent air,
the aerodynamic banking and yawing moments develop im-
mediately. The yaw is righted by the directional
stability. When flying in bumpy air, the overwhelming
majority of bank attitudes are not caused directly by
the turbulent air but are reactions to divergent mo-
tions. The lateral static stability is manifested by

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Lateral and Directional Stability (Cont.)

SOV/86-58-10-23/40

the appearance of a lateral moment which banks the aircraft in the direction contrary to the divergent motion. The lateral and directional stabilities are the main factors which affect the character of the lateral movement of the aircraft; the designer can, by controlling these stabilities, control the lateral movement efficiently. However, by making the lateral stability too effective, the aircraft may lose its good flying qualities: it would tend to bank excessively; this phenomenon has been often mistakenly understood as the manifestation of poor lateral stability. In multi-engine aircraft, as soon as an engine located on the wing stops working, the aircraft starts yawing; it continues flying by inertia in the same direction. There have been aircraft with a much too excessive, lateral stability, and therefore they tended to be unsafe; they banked very heavily and even turned upside down. To prevent this, not the ailerons but the rudder was used; it then removed the initial cause of

Card 2/4

Lateral and Directional Stability (Cont.)

SOV/86-58-10-23/40

banking. In aircraft with a "neutral" lateral stability, which is the desirable property in all aircraft, there is practically no banking in such cases of engine failure; the pilot then eliminates the yawing by adjusting the rudder trim tab. Excessive lateral stability is especially dangerous with turboprop engine aircraft because the propeller of a stopped engine develops a heavy drag (before its blades are feathered); a sharp bank can develop even when, at a moment of a raised thrust during power approach, the thrust fails to rise synchronously in all the engines of the aircraft. An increased directional stability is quite useful; it lowers, in a degree, the destabilizing effect of excessive lateral stability in cases where the value of the lateral stability itself cannot be lowered and also in the moments when the thrust fails to be symmetric. A high directional stability simplifies substantially the task of the pilot when he executes a turn since deviation from the correct attitude of the

Card 3/4

Lateral and Directional Stability (Cont.)

SOV/86-58-10-23/40

aircraft develops immediately a strong righting yawing moment. A high directional stability of the aircraft makes piloting more effective and flying safer.

Card 4/4

GALLAY, M., Geroy Sovetskogo Soyuz, zasluzhennyy letchik-ispytatel' SSSR

Test pilots. IUn. tekhn. 4 no.9:24-29 S '59.

(Airplanes--Flight testing)

(MIRA 12:12)

GALLAY, M.L., Geroy Soverskogo Soyuz, zasluzhenny letchikispytatel' SSSR,
kand.tekhn.nauk

Flying with uncomplete and uneven thrust. Vest.Vozd.Fl. no.3:53-60
Mr '60.

(MIRA 13:9)

(Airplanes--Aerodynamics)

GALLAY, M.

Beyond the sound barrier ("The lonely sky" by William
Bridgerman and Jacqueline Hazard. Reviewed by M.Galla1). IUn.
tekh. 4 no.1:42-44 Ja '60. (MIRA 13:5)
(Jet planes--Flight testing) (Bridgerman, William)
(Hazard, Jacqueline)

GALLAY, M. Geroy Sovetskogo Soyuz, zasluzhennyy letchik-ispytatel' SSSR.

American pilot Everest's book ("The fastest man alive" by Frank K. Everest). Reviewed by M. Gallai. Grashd.av. 18 no.1:31 Ja '61.
(MIRA 14:3)

(Airplanes—Flight testing)
(Everest, Frank K.)

GALLAY, M.L.; VASIL'YEV, A.A., red.; MIKHLINA, L.T., tekhn. red.

[Piloting jet airplanes] Osobennosti pilotirovaniia reaktivnykh
samoletov. Moskva, Izd-vo DOSAAF, 1962. 195 p. (MIRA 16:2)
(Jet planes--Piloting)

GALLAY, Mark Lazarevich, Geroy Sovetskogo Soyuza, zasl. letchik-
ispytatel' SSSR; FEDCHENKO, V., red.; GRIGOR'YEVA, Ye.,
tekh. red.

[Through invisible barriers; from the notes of a test pilot]
Cherez nevidimye bar'ery; iz zapisok letchika-ispytatel'ia.
2. izd. Moskva, Molodaia gvardiia, 1962. 124 p.

(MIRA 15:8)

(Airplanes--Flight testing)

L 12901-63 EPR/EPA(b)/EWT(a), EWT(1)/FCC(w)/BDS ARDC/ANFIC/ASD/AFMTC/
APGC Ps-l/Pd-l/Pg-l/Pk-l/Pq-l/Pq-l GQ/WH/AFIC
ACCESSION NR: AM3001368 S/0000/62/000/000/0001/0196

AUTHOR: Galloway, M. L.

TITLE: Osobennosti pilotirovaniya reaktivny*kh samoletov (Special features in piloting jet aircraft)

SOURCE: Osobennosti pilotirovaniya reaktivny*kh samoletov, Moskva, Izd-vo DOSAAF, 1962, 11, 12, 15, 92, 185, 190

TOPIC TAGS: aircraft control system, boundary-layer control, oscillation damper, cybernetic piloting unit

ABSTRACT: The following points of special interest are mentioned: 1) A number of designs for the control of a wing's boundary layer have been drawn up, and the first wind-tunnel and flight tests have given positive results. 2) The spontaneous oscillation of an aircraft at high altitudes is eliminated by an oscillation damper, which is part of the control system. The damper automatically compensates for aircraft oscillation, and pilot control is achieved with one motion of the controls. 3) The automatic electronic devices for simplifying controls already in use will be applied on a large scale, as will cybernetic piloting units. 4) The automatic devices are used on all modern jet engines to

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regulate the flow of fuel to the engines in response to speed changes initiated by the pilot with a "single jerk" of the throttles. 5) Experimental aircraft have attained speeds exceeding Mach 5. 6) Special equipment for rapid pressurized fueling of aircraft has been developed and is being introduced. Orig. art. has: 62 figures and 1 table.

ASSOCIATION: none

SUBMITTED: 00

DATE ACQ: 05Apr63

ENCL: 00

SUB CODE: AE

NO REF SOV: 003

OTHER: 002

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GALLAY, Mark Lazarevich, Geroy Sovetskogo Soyuz, Zasluzhennyy
letchik-ispytatel' SSSR; FEDCHENKO, V., red.; SAVEL'YEVA, V.,
tekhn. red.

[Tested in the sky; continuation of the memoirs of a test
pilot, "Over invisible barriers."] Ispytano v nebe; pro-
dolzhenie zapisok letchika-ispytatelia "Cherez nevidimye
bar'ery." Moskva, Molodaia gvardiia, 1963. 267 p.
(MIRA 16:10)

(Airplanes--Flight testing)

KOTIK, Mikhail Grigor'yevich, kand. tekhn. nauk; PAVLOV, Aleksey
Vasil'yevich, inzh.; PASHKOVSKIY, Igor' Mikhaylovich,
kand. tekhn. nauk; SARDANOVSKIY, Yuriy Sergeyevich, inzh.;
SHCHITAYEV, Nikolay Grigor'yevich, inzh.; GALLAY, M.L.,
kand. tekhn. nauk, zasl.letchik-ispytatel' SSSR, retsenzent;
KIRILLOV, Ye.A., inzh., retsenzent

[Flight testing of airplanes] Letnye ispytaniia samoletov.
Moskva, Mashinostroenie, 1965. 379 p. (MIRA 18:11)

GALLAY, Mark Lazarevich, Geroy Sovetskogo Soyuz, zasl. letchik-
ispytatel' SSSR; FEDCHENKO, V., red.

[Through invisible barriers. Tested in the sky; from the
notes of a test pilot] Cherez nevidimye bar'ery. Ispytano
v nebe; iz zapisok letchika-ispytatelia. Moskva, Molodaia
gvardiia, 1965. 445 p. (MIRA 19:1)

ACC NR: AN6004547

Monograph

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Gallay, Mark Lazarevich

Through invisible barriers. Tested in the sky; from the notes of a test pilot
(Cherez nevidimyye bar'yery. Ispytano v nebe; iz zapiskov letchika-ispyta-
telya) Moscow, Izd-vo TSK VLSKM "Molodaya gvardiya", 65. 044 p.
100,000 copies printed.

TOPIC TAGS: pilot training, jet aircraft

PURPOSE AND COVERAGE: This book is an account on test pilots whose work is
very important for the perfection of aircraft. While writing about these
men, the author tries to limit the subject of aviation technology to a mini-
mum necessary for the understanding of the work of a test pilot. Unfortuna-
tely, the author never kept a diary on his flights and was forced to rely on
his memory. His reports contain some factual inaccuracies.

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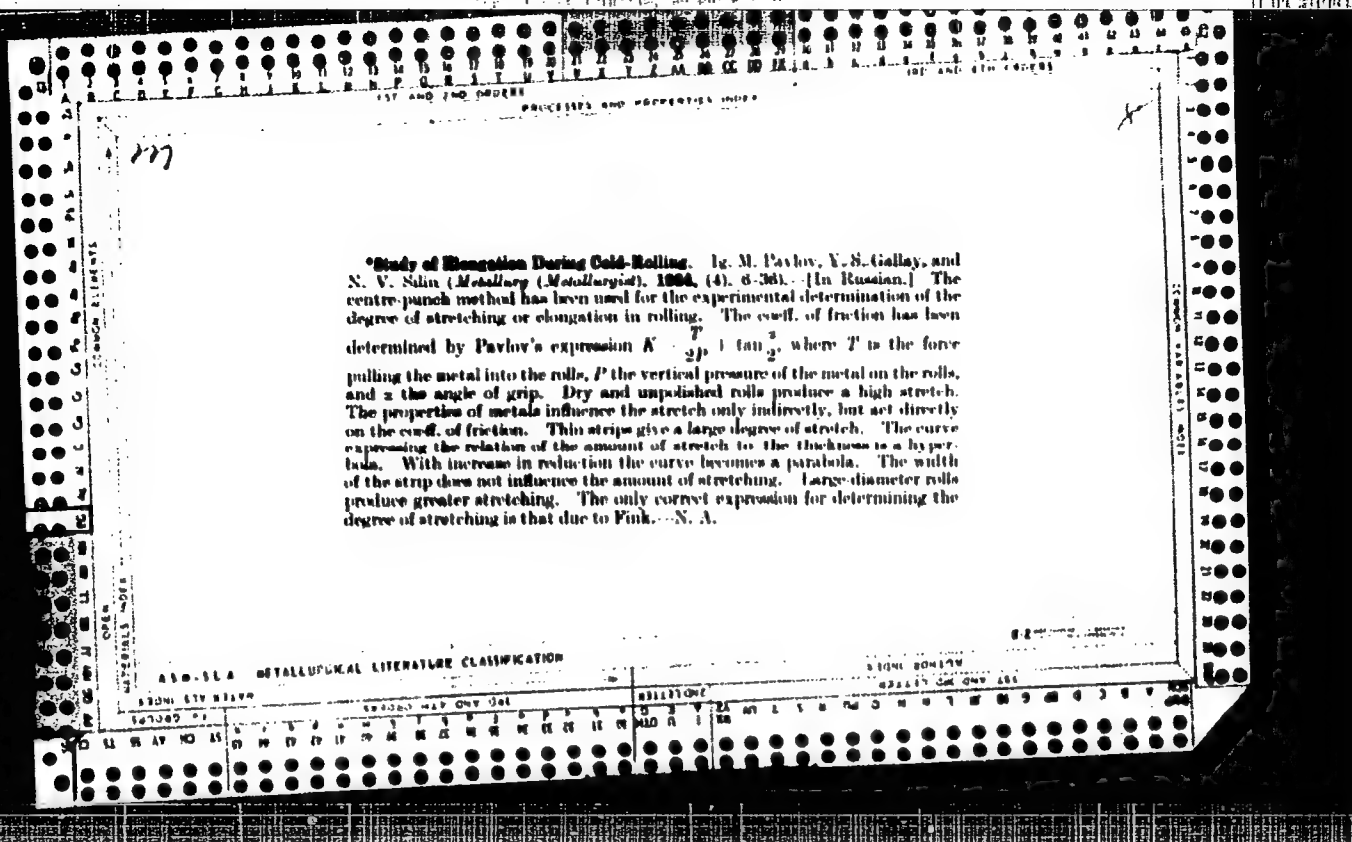
From the author -3
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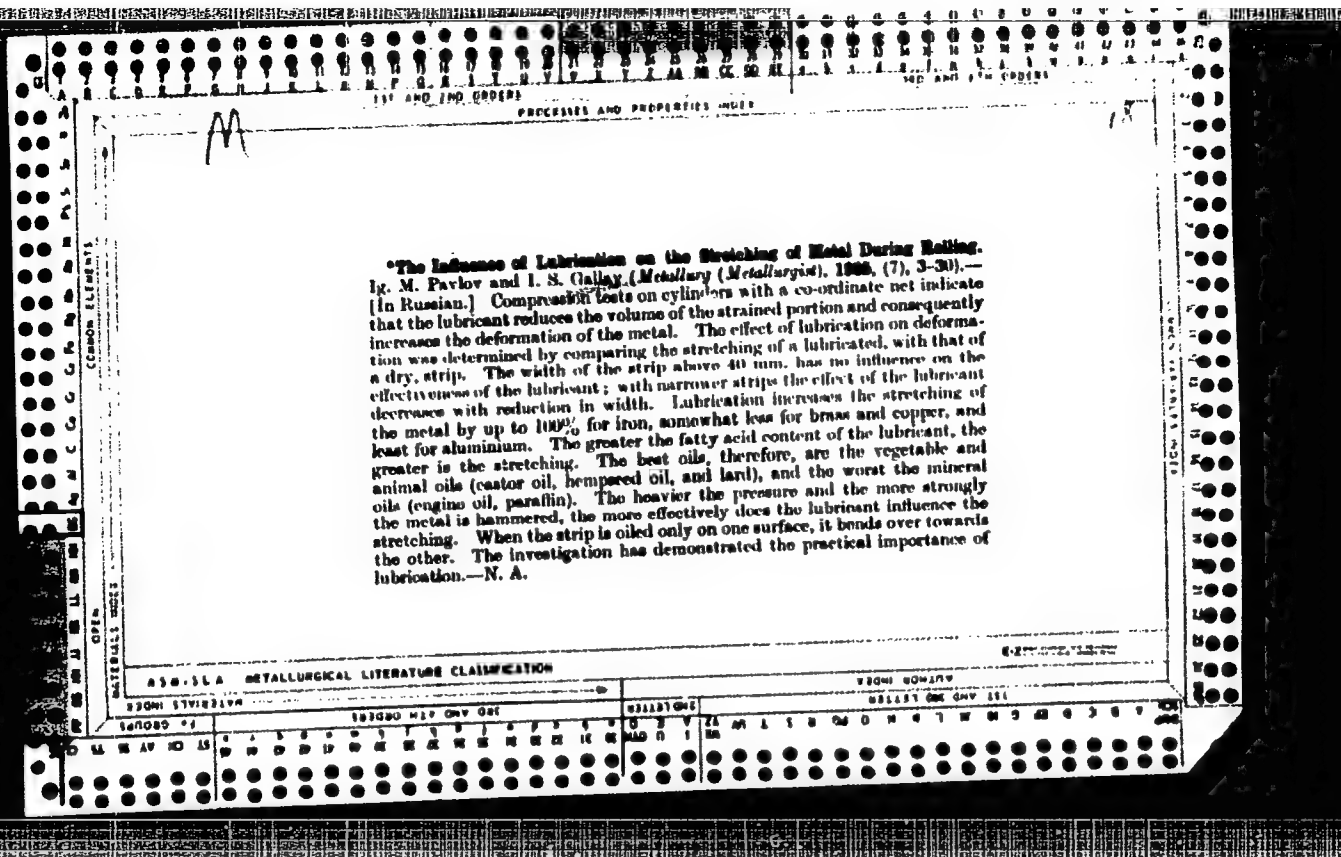
ACC NR: AN6004547

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SUB CODE: 05, 01 / SUBM DATE: 29 Mar 65

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PROCESS AND PROPERTIES INDEX																									
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<p>The Influence of Design and Surface Finish of the Rolls in the Hot-Rolling Stage on the Properties of Cold-Rolled Steel Strip. Ya. S. Gallyay and S. M. Lyubchanakiy. (Kachestvennaya Stal, 1937, No. 9, pp. 27-32). (In Russian). The authors examined the influence of surface defects in the billets, as well as that of defects in the design and surface finish of the rolls used in the hot-rolling stage of the rolling process in the production of steel strip for springs. An improvement was obtained by replacing the old square-rectangle-hexagon-oval-square-oval-square rolling sequence by a square-rectangle-square-rectangle-hexagon-square-oval-square sequence. Numerous photographs are used to illustrate defects arising out of irregularities in the surface of the original billets, as well as those due to faulty rolling caused by worn rolls.</p>																									
<p>ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION</p>																									
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12

•Resistance to Deformation in the Cold-Rolling of Non-Ferrous Metals and Alloys. Ig. M. Pavlov and J. S. Galley. (*Metalurgy (Metallurgiya)*, 1957, (3), 62-78).—[In Russian.] The resistance to deformation of metals during rolling is given by the expression $p \sim P/HV'R/H - A$, where P is the pressure of the metal on the rolls, R is the width of the strip, H the radius of the rolls, and H and A the thickness of the strip before and after rolling. The value of p increases

with increasing width of the strip up to 60 mm., but thereafter becomes practically constant. The absolute value of the deformation or of the elongation at a single pass does not affect p up to a total elongation of 2.5. For very thin and heavily deformed strips, p becomes, however, a function of the elongation; it increases with decreasing thickness of the strip, the equation $p \sim f(H)$ being a hyperbola. The dependence of p on thickness and on total elongation can be represented by the internal surface of a hyperbolic paraboloid. Lubrication causes a substantial decrease in p and in the number of passes required; in some cases both may be halved by the use of a suitable lubricant. The different lubricants may be arranged in increasing order of efficiency, thus: petrol, alkali, machine oil, castor oil. Curves are given showing the values of p in rolling copper, aluminium, Alclad, 62 : 38 and 68 : 32 brass, aluminium bronze, and iron-Tombac bimetal, with and without lubrication.—N. A.

AS 4.55.4 METALLOGICAL LITERATURE CLASSIFICATION

1ST AND 2ND ORDERS																										3RD AND 4TH ORDERS																									
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<p>*Resistance of Alloys to Hot-Rolling. I. I. G. Metallurgist & N. N. (Metallurg (Metallurgist). 1987, (4), 115 (21). [In Russian.] In the rolling of aluminium-clad VV 1 alloy (copper 4-9%, magnesium 0-4%, manganese 0-9%, silicon 0-4%, iron 0-4%, titanium 0-06%) heating of the rolls to 100° C, and lubricating them with wax has no effect on the specific resistance of the material to deformation. The width of the strip is also without influence if it exceeds 80 mm. The temperature of the material at the beginning of rolling must not exceed 450° C. The resistance to rolling is 10 kg. mm.² at 425° C, and 34 kg. mm.² at 350° C; it varies with the temperature according to the expression $p = 10 + (425 - T) \cdot 0.1$. With increasing total deformation, the mean resistance for a pass increases, i.e. the thinner the strip the greater is its resistance. The resistance is a hyperbolic function of the thickness of the strip.—N. A.</p>																																																			
<p>ASB-51.1 METALLURGICAL LITERATURE CLASSIFICATION</p>																																																			

1

The True Hardening of Metals by Cold-Working. Ig. M. Pavlov and J. S. Galay (*Metallurg (Metallurgy)*, 1937, (7), 41-44).—[In Russian.] Cf. *Md. Gallay* (*Metallurg (Metallurgy)*, 1937, 4, 672. Measurements were made of the resistance to deformation of electrolytic copper (copper 99.95, antimony 0.003, arsenic 0.042, blunth 0.002%) when passed between dry rolls and between rolls lubricated with kerosene, machine oil, and castor oil. Curves were drawn showing the force required to produce deformation after various reductions (0, 14.5, 30, 50, 79.5, 95.5%) had been given. The coeff. of friction (f) was also measured after different reductions, and, by extrapolating the curve so obtained to zero friction, it was possible to obtain the data necessary for the construction of the curve of resistance to deformation against amount of reduction for $f = 0$, i.e. the curve of "true" hardening by cold-work. The hardness of copper was found to increase from 21 to 77.7 kg./mm.² as a result of 70% reduction by cold rolling.—N. A.

METALLURGICAL LITERATURE CLASSIFICATION																									
FIRST PART ONLY													SECOND PART ONLY												
SUBJECT													AUTHOR												
<p>Influence of Lubricant on the Broadening of Rolled Strip. I. M. Pavlov and J. S. Gally (Metallurg (Metallurgy), 1967, (9/10), 107-111). [In Russian.] The rolling of beam specimens with dry rolls and with rolls lubricated by castor oil showed that, for a given degree of reduction, the curve showing the broadening of the strip in relation to its width lies lower for lubricated rolls than for dry ones. The narrower the strip the greater is the decrease in broadening effected by lubrication.—N. A.</p>																									

12

PROCESSES AND PROPERTIES INDEX

Resistance to Deformation in Cold-Rolling. 1. M. Pavlov and Y. S. Galay. (Metallurgist, Russia, 1937, vol. 12, No. 3, Mar., pp. 62-70). (In Russian). The authors determine the resistance to deformation (P) by cold-rolling from the formula

$$P = pHV/R(H - h)$$

where p is the pressure of the metal on the rolls as found from direct measurement, R the radius of the strip before and after rolling. H and h are the thickness of the strip before and after rolling. It is shown that P is independent of R for values of $R < 6$ cm., and of $(H-h)$ up to a total elongation of 250-300%. Where deformation is very heavy as in the case of very thin strip, p increases hyperbolically with increasing values of $(H-h)$. Lubrication causes a marked decrease in P , the efficacy of the following lubricants rising in the order: Petrol, alkali, machine oil, castor oil. The calculation of resistance to deformation is discussed for examples both with and without lubrication and it is shown that for a given reduction the number of passes may be reduced by half if the correct lubricant is employed. Non-ferrous metals were employed for these investigations.

METALLURGICAL LITERATURE CLASSIFICATION

62-70

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PROCESSES AND PROPERTIES INDEX

The rolling of Armco iron. Ya. S. Galai and M. I. Zlotnikov. *Metallurg* 13, No. 5, 51-60 (1938); *Chem. Zvesti* 1938, 11, 4119-20.—Expts. on the rolling of Armco iron (C 0.04, Mn 0.43 and Si 0.03%) showed that red-shortness appears in the temp. interval 800-1150°. A uniform preheating to 1250-1350° is indispensable. In order to prevent cracking at the edges the rolling process should not be interrupted during cooling and the O₂ content should be kept as low as possible (not greater than 0.005%). In cold-rolling from 2.5 to 0.4 mm. or from 0.4 to 0.1 mm. the metal should be passed through the rolls 5 times. The intermediate and final annealing temps. should be 700° and 750°. M. G. Moore

ALU-SLA METALLURGICAL LITERATURE CLASSIFICATION

031181 G66 G66 151

12

Choice of Lubricants for Cold-Rolling of Metals and Alloys. 1. M. Pavlov and Ya. S. Galley. (Kachestvennaya Stal, 1938, No. 2, pp. 34-42). (In Russian). By way of introduction the authors summarise the functions of a lubricant during rolling and review its desirable properties. The laboratory investigation took the form of a study of a large number of lubricants, the effect of their use during rolling on the specific pressure and the elongation of the material, the effect of lubricants in different types of rolling mill and on the elongation of different metals, the effect of additions of free fatty acids and of vegetable oils to the lubricants, the possibility of using mixtures of machine oil and paraffin oil, corrosion tests in various lubricants and, finally, a study of the behaviour and the effect of lubricants during annealing. Steel (with carbon 0.09%) was used in the majority of the experiments, while some experiments were also conducted on brass, copper and aluminium.

ASME S.L.A. METALLURGICAL LITERATURE CLASSIFICATION

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<p>17</p> <p>Elastic Deformation of Rolling-Mill Rolls. I. M. Pavlov and Ya. S. Gallya. (Metallurg, 1938, No. 10, pp. 68-70). (In Russian). The authors review previous work on the bending of rolls and consider the various expressions arrived at for the magnitude of the elastic deformation. These formulae are generally too involved for practical use. For practical purposes the authors derive the following expression for the deflection of the rolls:</p> $f = \frac{n P^2}{384 \times E \times l}$ <p>where P is the pressure, E the modulus of elasticity of the material, l the effective length of the roll between the bearings, I the moment of inertia of the rolls and n a coefficient depending on the ratio of the width of the strip to the length l of the rolls. Using a special apparatus, the measured deflection of the rolls was found to agree to within 5-10% with the results calculated from the above formula. The formula should be useful for calculations in connection with the cambering of rolls.</p>																			
<p>ASS-SLA METALLURGICAL LITERATURE CLASSIFICATION</p> <p>13000 6010101</p> <p>13000 6010101</p>																			

1ST AND 2ND ORDERS										PROCESSES AND PROPERTIES INDEX									
<p>ELASTIC COMPRESSION OF ROLLING-MILL ROLLS. I. M. Pavlov and Y. S. Galay. (Metallurg, 1958, no. 1, pp. 79-86). (In Russian). Earlier literature on the radial compression of rolls is first briefly considered and a method of directly measuring the radial compression of rolls is developed. The deformation of rolls pressed into contact is then determined by measuring the width of the imprint on the lower roll made by the upper roll which was coated with soot. Both static and dynamic experiments were performed to investigate the deformation of the rolls when a strip of uniform thickness was placed or rolled between them. In the latter case it was found that lateral spreading of the strip was confined to its edges owing to their greater reduction in thickness due to the radial compression of the rolls. There is parabolic relation between pressure and the radial compression of the rolls. Every-thing which tends to increase the pressure on the rolls will cause an increase in the irregularity of the lateral distribution of the re-duction in thickness. This irregularity is reduced by rolling annealed metal and by using small reductions per pass, polished rolls and</p>																			
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<p>777</p> <p>Chromium-Plating of Steel-Mill Rolls. Ya. Galina (Novosti Tekhniki (Tech. News), 1955, (10), 9-10; <i>C. Aba.</i>, 1955, 32, 6583). [In Russian.] The rolls are polished, washed with petrol, and several times with hot water. They are then chromium-plated at 45-47° C. in chromic acid 250 gm./litre and sulphuric acid 2-2.5 gm./litre at 15 amp./in.². The thickness of chromium should be 0.02 mm. After plating, the roll should be heated to 150° C. Chromium-plated rolls have twice the wear resistance of ordinary rolls. S. G.</p>																									
<p>ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION</p> <p>65834 1711100</p> <p>65834 1711100</p>																									

13

Lignoston bearings for rolling mills. Ya. S. Gallai. *Stal* 9, No. 4-5, 45-9 (1939); *Chem. Zentr.* 1939, II, 1108.

--Lignoston is produced as follows: birch wood contg. 12-14% moisture is steeped in 20% glucose for 3 hrs. at 6 atm. and 80-90°, pressed under 30-80 kg. sq. cm., heated to 80-100°, pressed again under 350 kg. sq. cm. (10-20°), and slowly cooled to 50°. Lignofol is a plywood impregnated with bakelite. The following properties are reported for Lignoston and Lignofol resp.: resistance to compression 700-1000 and 1500-1700 kg. sq. cm.; coeff. of friction 0.003-0.005 and 0.003; sp. gr. 1.35 and 1.36; impact resistance (notched-bar test) 2.4-4.7 and 21-8 cm. kg. sq. cm.; and capacity to absorb water 6 and 0.2%. Comparative tests on Textolite, Lignoston and Lignofol showed the following advantages and disadvantages of the 2nd two products over the first: a greater capacity for absorbing water and lubricants, greater capacity for swelling at temps. above 100°, and lower resistance to compression. Lignofol has all the advantages of Lignoston without its disadvantages. M. G. M.

ASB-55A METALLURGICAL LITERATURE CLASSIFICATION

12

Lignostone Bearings for Rolling Mills. Vn. Gallyay, (Stal. 1930, No. 4-5, pp. 45-50). (In Russian). Lignostone is made by drying birchwood to a moisture content of 12-14% and then impregnating it under pressure at 80-90° C. with 20% glucose solution. This is followed by several pressings and heat treatments. Finally the glucose with which the wood is impregnated is caramelized by heating the material to 105° C. under a pressure of 80-100 kg. per sq. cm. Lignostone was developed as a substitute for textile-reinforced bakelite for use in rolling-mill bearings. Lignofol (plywood impregnated with bakelite) is another material developed for the same purpose. The physical properties of these two materials are described and the design of bearings, the lubrication and the results of works tests are dealt with. As compared with fabric-reinforced bakelite, lignostone has a much lower loading limit (75 kg. per sq. cm. as compared with 250-300 kg. per sq. cm.); it has a tendency to swell at temperatures above 100° C. Lignofol, on the other hand, is equivalent to fabric-reinforced bakelite, and it is a cheaper material.

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

GALLAI, IAKOV SAMUILOVICH

Author: Gallai, Iakov Samuilovich

Title: The lignitiferous bearings. The Principles of Construction
and exploration. (Lignofolevye i lignostonovye podshipniki) 48 p.

City: Sverdlovsk

Publisher:

~~Publications~~ State Scientific and Technical Publication.

Date: 1946

Available: Library of Congress

Source: Monthly List of Russian Accessions, Vol. 3, No. 12, p. 838

GALLAY, Ya. S.

PA 18T34

USSR/Wire - Drawing
Metallurgy

May 1947

"The Theory of Multiple-drawn Wire by Sliding," Ya.
S. Galloy, 6 pp

"Stal'" Vol VII, No 5

The theory of multiple-drawing of wire has noticeably supplemented and improved the accepted formula for designing draw plates. Also permitted the establishment of a standard process and the greatest expansion of diapason of the gage of the wire-drawing machinery. Diagrams and formulae.

18T34

4

B

Residual Stresses in Rolled Sheet. Yu. S. Gallal, M. I. Zlotnikov, and N. N. Sokolevski, *Engineer's Digest*, v. 10, Feb. 1945, p. 41-42. Translated and condensed from *Stal* (Steel), no. 1, 1948, p. 37-46.

Test results for five low-alloy steels (compositions given) are shown graphically and discussed.

AISI-SAE METALLURGICAL LITERATURE CLASSIFICATION

AISI-SAE STEEL DESIGNATION										AISI-SAE ALUMINUM DESIGNATION									
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105
110	115	120	125	130	135	140	145	150	155	160	165	170	175	180	185	190	195	200	205

5/

CA

Methods of testing of the water and oil absorption of wood plastics. Ya. S. Gallai and M. A. Rudyk (Leningrad Politek. Inst. i Konstruktskoe Byuro Gidromontazh). Zvezdskaya Lab. 14, 940 54(1948).—A sample 15 × 15 × 15 mm. of plastic DSP was tested for H₂O absorption with neutral H₂O at 50° for 6 days. Oil absorption and swelling were detd. by using dehydrated oil at 50° for 40-60 days. The effects of temp. and of acid and alkali addns. to the H₂O are reported. 0.1% NaOH increasing absorption slightly and 0.01% H₂SO₄ somewhat more at 20°. Marshall Sittig

GALLAY, Ya. S.

Gallay, Ya. S. - "The treatment of high carbon steels from rolling heat," Sbornik nauch.-tekhn. rabot (Vsesoyuz. nauch. inzh.-tekhn. o-vo metallurgov, Leningr. otd-niye), Issue 1, 1949, p. 179-86

SO: U-5240, 17, Dec. 53, (Istopis 'Zhurnal 'nykh Statey, No. 25, 1949).

GALLAY, Ya.S., dotsent.

The use of wood plastics in the textile industry. Tekst.prom.
16 no.2:55-59 P '56. (MLRA 9:5)
(Textile machinery) (Wood) (Metals, Substitutes for)

GALLAY, YAKOV SAMUILLOVICH.

PHASE I BOOK EXPLOITATION

601

Pavlov, Igor Mikhaylovich, Gallay, Yakov Samuilovich, and Astakhov, Ivan Gerasimovich

Rukovodstvo k uchebnomu laboratornomu praktikumu po prokatke (Manual for a Laboratory Course in Rolling-Mill Processes) 2d ed., rev. Moscow, Metallurgizdat, 1957. 5,000 copies printed.

Ed.: Golyatkina, A. G.; Tech. Ed.: Attopovich, M. K.

PURPOSE: The book is intended for students of metallurgical vuzes and for students in other fields taking a laboratory course in "Metal Working by Pressure".

COVERAGE: The book discusses the methods of conducting a laboratory course in metal rolling and roll-design (except pre-rolling). Basic theoretical information is given and necessary measuring devices and instruments are described. The work assignments in this manual are coordinated with the following text books:

Card 1/12

Manual for a Laboratory (Cont.)

601

1. Pavlov, Ig. M. The Theory of Rolling and Fundamentals of Plastic Deformation, 2nd edition, Metallurgizdat, 1938.
2. Pavlov, Ig. M. - The Theory of Rolling (General Principles of Metal Forming by pressure). Metallurgizdat, 1950.
3. Bakhtinov, B. P. and Shternov, M. M., ~~Exam~~ Design on Mill Rolls. Metallurgizdat 1953. There are no references.

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2. Emergence of rolling-mill training laboratories	9
3. State of rolling-mill training laboratories in the USSR today	10
4. Methods of teaching in rolling-mill training laboratories	13
	18

Card 2/12

GEL'FAND, Feliks Vul'fovich; AL'SHITS, Isaak Yakovlevich, kandidat
tekhnicheskikh nauk; GALLAY, Ya. S., redaktor; ARKHANGEL'SKAYA, M.S.,
redaktor izdatel'stva; EVINSON, I.M., tekhnicheskii redaktor.

[Plastic-coated bearing] Podshipniki, oblitsovannye plastmassoi.
Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po cherno i tsvetnoi
metallurgii, 1957. 94 p. (MIRA 10:11)

1.Zavod "Krasnyy Vyborshets."
(Bearings (Machinery))

BEL'SKIY, B.M. [deceased]; BUR'YANOV, V.F.; VASIL'YEV, Ye.P.; VITKINA, E.I.:
 GALLAY, Ya.S.; LEVIN, G.I.; MATVEYEV, Yu.M.; CHELYUSTIN, A.B.;
 ROKOTYAN, Ye.S., red.; ISTOMIN, A.B., red.; GHOZIN, V.I., red.;
 NEPOMNYASHCHIY, N.I., red. izd-va; KARASHEV, A.I., tekhn. red.

[Ferrous metallurgy in capitalistic countries] Chernaya metallurgiya kapitalisticheskikh stran. Pt.4. [Rolling mill production] Prokatnoe i trubnoe proizvodstvo. Bel'skii, B.M. and others. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po chernoi i tsvetnoi metallurgii. 1958. 627 p. (MIRA 11:7)

1. Moscow. Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii.

(Forging) (Rolling (Metalwork)) (Pipe, Steel)

GALLAY, Ya.S., dots.

"Rolling mill practices" by IU.M.Chizhikov. Reviewed by LA.S.
Gallai. Izv.vys.ucheb.nav.; chern.met. 2 no.6:163-166
Je '59. (MIRA 13:1)

1. Severo-Zapadnyy sadochnyy politekhnicheskii institut.
(Rolling (Metalwork)) (Chizhikov, IU.M.)

18.0000

301/11-22-10-16/39

AUTHOR: Gallay, Ya. S. (Docent)

TITLE: Review of the book "Rolling Production" by Chizhikov, Yu. M., Second Revised and Amplified Edition, Metallurgizdat, 1958, 612 pp, 360 figures

PERIODICAL: . Stal', 1959, Nr 10, pp 935-936 (USSR)

ABSTRACT: The reviewed book is recommended as a handbook for metallurgical schools but may also be of use to students of higher learning and to engineers.

ASSOCIATION: North Western Correspondence Polytechnic Institute (Sev.-Zap. zaochnyy politekhnicheskiy institut)

Card 1/1

S/137/60/000/011/016/043
A006/A001

Translation from: Referativnyy zhurnal, Metallurgiya, 1960, No.11, p.116, # 26131

AUTHOR: Gallay, Ya.S.

TITLE: On the Friction Coefficient in Rolling

PERIODICAL: Tr. Mezhvuz. nauchno-tekhn. konferentsii na temu: "Sovrem.dostizh. prokatn. proiz-va", Vol. 2, Leningrad, 1959, pp. 391 - 392

TEXT: Simultaneously with investigations of the magnitude of friction forces in rolling, the problem is set on the necessity of continuing the study of physical phenomena occurring at the contact surface (the process of destruction and impression of scale, etc). These phenomena affect considerably the nature of the distribution of friction forces, the quality of the rolled stock surface, and the wear of the rolls. ✓

B.Sh.

Translator's note: This is the full translation of the original Russian abstract.

Card 1/1

Yakov, Samuilovich Galay

PHASE I BOOK EXPLOITATION

SOV/4420

Materialy po teorii prokatki, ch. VI (Materials on the Theory of Rolling, Pt. 6)
Moscow, Metallurgizdat, 1960. 496 p. 3,250 copies printed.

Compiler: Yakov Samuilovich Galay, Docent; Ed.: Ig. M. Pavlov, Corresponding
Member, Academy of Sciences USSR; Ed. of Publishing House: L.M. Gordon; Tech. Ed.:
M.K. Attopovich.

PURPOSE: This book is intended for scientific research workers, aspirants, and
technical personnel of metallurgical and machine-building plants. It may also
be of use to students of schools of higher technical education and tekhnikums.

COVERAGE: This is part six of a multivolume series covering materials pub-
lished from 1933 through 1956 in the Soviet Union and other countries on the
theory of rolling of metals and on the results of experimental investigations of
certain problems connected with this process. Part six contains materials pub-
lished in the period 1946 - 1956 on the kinetics of metals in cold and hot roll-
ing, forces acting between the work and the rolls, distribution of pressure over
the arc of contact, effect of the speed of rolling on deformation resistance,
elastic deformation of a mill caused by pressure of rolling, consumption of

Card 1/8

Materials on the Theory of Rolling, Pt. 6

SOV/4420

energy, determination of torque, and on the influence of rolling speed and temperature on energy consumption. No personalities are mentioned. There are 362 Soviet and non-Soviet references listed by chapters.

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